# TUBULAR INSPECTION REGIME AND REFURBISHMENT AS A TOOL FOR EFFECTIVE DRILLING OF GEOTHERMAL WELLS: A CASE STUDY OF MENENGAI GEOTHERMAL FIELD

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## ABSTRACT

Drilling tubulars are some of the main components of a drilling rig mostly used in the day to day drilling operations. Different drilling tubulars are used together to form the drill string. The drill string components are: bit subs, collars, the stabilizers, reamers, fishing and drilling jars, heavy weight drill pipes, drill pipes and shock subs. These components are constantly in use under different forms of loading thus their integrity should always be assured to prevent instances of failure. Data from most of the wells drilled at Menengai shows that drill string failure is a major contributor to delays in timely well completion. The drill string needs to be closely monitored after its acquisition from the manufacturer and while in operation for adherence to standards for effective drilling. Tubular rotating hours have to be recorded accurately for proper inspection to be done. Inspection of tubulars should also be done after some non-routine operations like fishing. After inspection, some tubulars need remedial work to be done on them like rethreading damaged threads, refacing, machining of stress relief grooves, rebeveling connections to ensure their re-use. . These features should be as per specified standards of API Spec 7, thread profile/foam, standoff, taper, bevel diameter, pin length, SRG width, SRG diameter, thread length, box depth, bore back length, float bore length and diameter, outside diameter, inside diameter, overall length for effective performance of the tubulars. This study is to track tubulars used for drilling in the Menengai geothermal field, from manufacture, the inspections, remedial services done on the tubulars and pros and cons of an effective system of monitoring tubulars and refurbishing the tubulars as a tool to assist drill wells effectively and timely.